

## Sexual Health of Trans Men Who Are Gay, Bisexual, or Who Have Sex with Men: Results from Ontario, Canada

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**ABSTRACT.** Recent reports have addressed the sexual health of female-to-male transgender or transsexual people who are gay, bisexual, and/or have sex with men (trans GB-MSM) using urban convenience samples. The Trans PULSE Project conducted a multimode, respondent-driven sampling survey in Ontario, Canada, in 2009–2010. Weighted estimates were calculated for trans GB-MSM ( $n = 173$ ) for sexual orientation, behavior, partners, and HIV-related risk, as well as for psychosocial stressors and sexual satisfaction. An estimated 63.3% (95% CI [50.4, 73.5]) of trans men were GB-MSM (173/227). Results indicate great diversity in sexual behavior and experiences. Implications for sexual health promotion, counseling, and medical care are addressed.

**KEYWORDS.** Female-to-male, gay, bisexual, men who have sex with men (MSM), sexual orientation, sexual health, sexual behavior, HIV risk, transgender, transsexual

### **BACKGROUND**

In the late 1980s, researchers began to take note of female-to-male transgender, transsexual, or transitioned individuals (trans men) who identified as gay or bisexual or who engaged in sex with men after assuming male social identities (Coleman & Bockting, 1988). In the decades since, as trans men's visibility and community have grown considerably, the emergence

of a unique gay/bisexual trans sexuality has been described (Bockting, Benner, & Coleman, 2009). Contrary to assumptions that trans men transition to become heterosexual men, studies have found that one quarter to one half describe themselves as gay or bisexual, with even larger proportions identifying as queer (Clements-Nolle, Marx, Guzman, & Katz, 2001; Grant et al., 2011; Iantaffi & Bockting, 2011). Trans men may perceive a shift in sexual attraction

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toward men during transition or posttransition (Bockting et al., 2009; Devor, 1993; Vidal-Ortiz, 2005). Recent research with trans men has drawn attention to nonconcordance between reported sexual orientation, attraction, and behavior (Iantaffi & Bockting, 2011; Vidal-Ortiz, 2005). Little information is available about the specific sexual practices of trans men who are gay or bisexual or men who have sex with men (trans GB-MSM). However, in a study of 45 trans MSM in the United States, 84% reported oral sex, 60% anal sex, and 69% receptive genital sex with a cis (cisgender, or nontrans) man in the past year (Sevelius, 2009). Most trans men do not have genital surgeries (Bauer, 2010; Grant et al., 2011; Newfield, Hart, Dibble, & Kohler, 2006), and many trans GB-MSM engage in receptive genital sex, contrary to the assumption that they would not wish to engage in this activity (Bockting et al., 2009).

Due in part to the assumption that they primarily have sex with cis women, trans men have often been considered to be at low risk of HIV infection, especially in comparison to trans women (Kenagy & Hsieh, 2005). With respect to HIV prevalence, studies of trans men have reported prevalences from 0% to 3% (Adams et al., 2008; Bauer, Travers, Scanlon, & Coleman, 2012; Chen, McFarland, Thompson, & Raymond, 2010; Clements-Nolle et al., 2001; Herbst et al., 2008; Sevelius, 2009; Xavier, Bobbin, Singer, & Budd, 2005). Conclusions regarding HIV prevalence among trans men cannot be drawn from these data, as only one small study (Chen et al., 2010) included confirmed HIV test results, and most were based on small convenience samples. However, high lifetime prevalences of sexually transmitted infections (STIs) have been reported in some samples (Reisner, Perkovich, & Mimiaga, 2010; Sevelius, 2009). HIV testing prevalence estimates in previous studies focusing on trans GB-MSM were high, with the proportion ever tested ranging from 87% (Adams et al., 2008) to 96% (Sevelius, 2009). One of the first quantitative studies to assess HIV risk in trans men (Clements-Nolle et al., 2001) found that small proportions of respondents reported receptive genital (10%) or anal sex (7%) with a cis male or transgender partner in the past 6 months, but a majority of those who reported having engaged in these

behaviors used condoms inconsistently. Twenty percent had not had sex with a partner in the same time period. More recent studies have focused specifically on trans MSM, finding that 44% to 69% reported past-year unprotected sex or inconsistent condom use with cis men (Reisner et al., 2010; Sevelius, 2009). In Ontario, an MSM surveillance study (Myers, Remis, & Husbands, 2007) included 22 trans MSM participants, one third of whom reported unprotected receptive anal sex with a partner who was HIV-positive or of unknown status in the past 6 months. However, these studies of trans MSM had extremely small samples ( $n = 16\text{--}45$ ) recruited primarily from urban lesbian, gay, bisexual, and transgender (LGBT) community events or organizations, and some required past-year (Reisner et al., 2010) or post-social transition (Sevelius, 2009) sex with a cis male for study inclusion. High levels of participation in sex work have been observed among trans men in American cities; lifetime history of sex work or survival sex was reported by 31% in Clements-Nolle et al. (2001), while past-year sex work was reported by 18% in Sevelius (2009). In qualitative interviews (Sevelius, 2009), trans MSM varied in the emphasis they placed on safer sex with paying partners.

Qualitative research with trans GB-MSM has identified a number of potential contributors to HIV and STI vulnerability, as well as factors related to transition that may impact overall sexual health. These include fear of violence or rejection from potential sexual partners (Iantaffi & Bockting, 2011; Kosenko, 2011; Rowniak, Chesla, Rose, & Holzemer, 2012), low self-esteem (Adams et al., 2008; Clements, Wilkinson, Kitano, & Marx, 1999), transition-related sexual experimentation and exploration (Kosenko, 2008; Reisner et al., 2010), and desire for validation as gay/bisexual men (Adams et al., 2008; Reisner et al., 2010; Sevelius, 2009). Additionally, a lack of relevant sexual health information and unfamiliarity with gay community sociosexual norms, customs, and risks (Adams et al., 2008; Rowniak et al., 2012; Sevelius, 2009) may limit the ability of trans GB-MSM to avoid HIV or other STI. A high prevalence of depressive symptomatology (Reisner et al., 2010; Rotondi, Bauer, Scanlon, et al., 2011) may also contribute

to poor sexual health outcomes. While little research has explored sexual well-being among trans men, Bockting et al. (2009) found that trans GB-MSM had high sexual satisfaction, with no significant difference with a comparison group of cis GB-MSM. Among trans men, sexual satisfaction has been found to be inversely associated with depression (Rotondi, Bauer, Scanlon, et al., 2011).

To date, research with trans GB-MSM has largely been qualitative, focused on those who are currently sexually active with cis men, or descriptive of small convenience samples. Additionally, little research has been conducted with trans GB-MSM outside of the United States, including in Canada, where trans experiences may be different from those in the United States because of access to health care, human rights protections, and potentially greater social inclusion. This article seeks to describe the experiences of trans GB-MSM in Ontario, Canada, related to sexual orientation identity and behavior, HIV-related sexual risk, sexual satisfaction, and psychosocial factors potentially associated with sexual risk taking.

## METHODS

### *Study Sample*

This analysis uses data collected during the second phase of the Trans PULSE Project. Trans PULSE is a community-based research project that aims to understand and improve the health of trans people in Ontario, Canada. The Trans PULSE team is built on a partnership between academic researchers, members of the trans community, and community-based organizations that are committed to improving the health of trans people. An initial qualitative phase was carried out to inform the quantitative survey development and to develop a theoretical model of trans “erasure” in health care systems (Bauer et al., 2009). Approval for the Trans PULSE Project was obtained from Research Ethics Boards at The University of Western Ontario and Wilfrid Laurier University.

Survey data were collected through respondent-driven sampling (RDS; Heckathorn, 2002) over a 12-month period in 2009–2010. RDS is a tracked chain-referral method for

recruitment and analysis that is designed to limit bias in studies of hidden populations, those for which a random sample cannot be obtained. In Trans PULSE, each participant could recruit up to three additional participants. These participants in turn could recruit up to three more and so on. Recruitment patterns were tracked, and individual network sizes (the number of other eligible people known) were assessed to allow for statistical analyses that adjust for known biases in network-based samples.

The multimode survey was completed via Internet or paper; no participants chose a telephone interview option. The survey included items on health-related measures, including social determinants of health, psychosocial measures, health care experiences, and sexual health. Participants were trans people age 16 and over who lived, worked, or received health care in Ontario. A broad definition of “trans” was used; participants were not limited to particular identities, and were not required to have begun or completed a social or medical gender transition.

A total of 433 participants were recruited, including 227 trans men. In this analysis, trans men included those who identified as male or primarily masculine, as well as those who identified as gender fluid, bigender, or identified themselves in a similar way and who were assigned a female sex at birth. Trans GB-MSM ( $n = 173$ ) were defined as trans men who indicated they had a sexual minority identity (e.g., gay, bisexual, pansexual, queer) and were not exclusively attracted to cis women, or those who had had sex with a cis or trans man in the past year, regardless of how they identified.

### *Measures*

All data were based on self-reported measures. Participants indicated their sexual orientation identity; past-year sex partners, partner numbers, and sexual behaviors; and histories of sex work and HIV testing. Two sets of sexual behavior variables were coded, one to describe the broad range of sexual activities trans GB-MSM engage in and the second to capture HIV- and STI-related risk from a narrower range of activities. Sexual behaviors included oral, anal, and genital sex involving flesh genitals, silicone or latex, or fingers or hands. “High risk” was

coded using multiple survey items and defined according to Canadian AIDS Society (2004) guidelines as unprotected (fluid-exposed) sex outside of a HIV-seroconcordant monogamous relationship; “high risk” measures included behaviors involving only flesh genitals.

Sexual satisfaction was measured using a subscale of the Multi-dimensional Sexual Self-Concept Questionnaire (Snell, 1998) and was coded as low, moderate, or high, based on tertiles (one third in each group) for the entire sample (all trans men and trans women participants). Sexual body image worries were assessed using a 7-item scale developed for this project, which included items such as “When I think about having sex, I worry . . . that other people think my body is unattractive, that there are very few people who would want to have sex with me, about my physical safety, that once I’m naked people will not see me as the gender I am, that I can’t have the sex I want until I have a(nother) surgery.” A participant was coded as having low sexual body image worries if on average they indicated that statements applied to them “not at all” to “slightly,” moderate worries if on average they indicated “somewhat,” and high worries if items averaged in the “moderately” to “very” applicable range. Depressive symptomatology was assessed with the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), with scores greater than 16 considered “depressed”; the depressed group was further divided into moderate depression (scores of 16 to 26) and severe depression (scores of 27 and over). Transphobic violence was measured by asking participants if they had ever experienced harassment, physical violence, or sexual violence “because [you’re] trans or because of [your] gender expression.”

### Statistical Analysis

All analyses were conducted using RDSAT 6.0.1 (Volz, Wejnert, Degani, & Heckathorn, 2007). Data on participants’ network sizes and network characteristics were used to weight all statistics based on each participant’s probability of recruitment (Heckathorn, 2002). Statistics presented are thus population estimates for networked trans people in Ontario (i.e., those who know at least one other trans person). Ninety-five

percent confidence intervals (CI) were calculated using a modified form of bootstrapping, with resampling based on recruitment chains (Salganik, 2006). CI represent the range of plausible population estimates that are consistent with our data.

## RESULTS

Table 1 presents estimates of sexual orientation among trans men in Ontario. Trans men identified across a full range of sexual orientation identities, with only about one third identifying as heterosexual or straight. As a group, trans men had cis and trans partners who identified as men, women, and genderqueer.

The remainder of the results presented focus on trans GB-MSM; an estimated 63.3% of trans men (95% CI [50.4, 73.5]) fit into this category. Table 2 provides details on relationship status, past-year sexual activity, and past-year HIV-related sexual risk for trans GB-MSM. A full range of experience was represented with regard to current relationship types, as well as partner numbers. Of trans GB-MSM, 17.9% had no sexual partners in the past year, while 14.1% had five or more, with a maximum of 53 past-year partners. Trans GB-MSM engaged in all types

TABLE 1. Sexual Orientation of Trans Men in Ontario, Canada ( $n = 227$ ): Identity and Behavior

Sexual orientation	%	95% CI
<b>Identity</b>		
Bisexual/Pansexual	24.0	[16.4, 33.3]
Gay	10.0	[4.1, 17.7]
Lesbian	4.1	[1.3, 7.8]
Asexual	14.9	[8.8, 24.1]
Queer	48.2	[34.7, 58.7]
Straight/Heterosexual	34.3	[24.1, 47.1]
Two-spirit	3.0	[1.1, 5.7]
Not sure/Questioning	11.9	[5.0, 20.1]
Other	5.0	[0.4, 11.0]
<b>Past-year partners</b>		
Trans men	10.2	[4.7, 16.1]
Cis men	21.3	[12.8, 31.0]
Trans women	6.8	[1.6, 13.4]
Cis women	43.6	[32.0, 53.4]
Genderqueer persons	13.7	[6.4, 21.0]

Note. CI = confidence intervals; cis = cisgender (nontrans).

TABLE 2. Relationship Status, Recent Sexual History, and HIV-related Risk Among Trans Men Who Are Gay, Bisexual or MSM: Ontario, Canada ( $n = 173$ )

	%	95% CI
Relationship status		
Single and not dating	24.6	[15.1, 34.1]
Single and dating	12.3	[5.6, 20.5]
Monogamous relationship	45.0	[34.6, 56.6]
Non-monogamous (open) relationship	11.3	[5.1, 18.8]
Polyamorous relationship	6.7	[2.9, 11.4]
Number of sex partners, past yr.		
0	17.9	[8.2, 31.4]
1	45.4	[28.4, 57.6]
2–4	22.7	[13.5, 37.0]
5+	14.1	[5.3, 24.0]
Sexual behaviors, past yr. <sup>a</sup>		
Received oral sex	65.4	[50.2, 77.4]
Gave oral sex	67.2	[52.3, 81.3]
Receptive partner in anal sex	34.2	[19.9, 47.6]
Insertive partner in anal sex	29.0	[17.7, 43.5]
Receptive partner in genital sex	67.1	[53.2, 78.8]
Insertive partner in genital sex	56.6	[41.9, 70.6]
Fluid-exposed sexual behaviors, past yr. <sup>b</sup>		
High-risk receptive anal sex	0.1	[0.0, 0.2]
High-risk insertive anal sex	0.0	[0.0, 0.0]
High-risk receptive genital sex	9.5	[1.4, 19.6]
High-risk insertive genital sex	0.8	[0.0, 3.9]
HIV-related sexual risk, past yr.		
No risk (no sex)	17.5	[7.7, 30.2]
Low/Moderate risk	73.3	[58.9, 85.0]
High risk	9.2	[1.3, 19.7]
Ever done sex work or exchange sex	15.8	[6.5, 24.7]
HIV testing		
Past year	21.0	[9.4, 31.3]
> 1 year ago	36.3	[25.9, 51.7]
Never	42.7	[28.3, 55.9]

Note. MSM = men who have sex with men; CI = confidence intervals.

<sup>a</sup>Genital and anal sex could involve penetration with flesh genitals, prostheses or toys, or fingers or hands.

<sup>b</sup>High-risk sexual behaviors are defined as involving flesh genitals (no prostheses or toys) and fluid exposure, other than with a long-term seroconcordant monogamous partner.

of sexual activity, including receptive genital sex, though proportions of persons engaging in high-risk activities were much lower. The primary contributor to HIV risk was unprotected receptive genital sex. About one third of trans GB-MSM had a cis man as a partner in the past year, and 9.2% had engaged in high-risk activity; most engaged in low/moderate-risk activities. The survey found that 15.8% of trans GB-MSM had engaged in sex work or exchanged sex for money or goods at some point. A high proportion of trans GB-MSM (42.7%, 95% CI [28.3, 55.9]) had never been tested for HIV, while 21.0% had been tested in the past year.

In Table 3, we present data on psychosocial factors that may impact sexual risk taking. Based on coding by tertiles, trans GB-MSM did not differ from other groups of trans people in our study with regard to sexual satisfaction (Rotondi, Bauer, Scanlon, et al., 2011; Rotondi, Bauer, Travers, et al. 2011). While 1 in 5 had high levels of sexual body image worries, about one half had low levels. The majority of trans GB-MSM scored as “depressed,” according to CES-D criteria, with scores greater than or equal to 16, and about half (51.7%, 95% CI [39.5, 65.9]) reported levels of depressive symptoms that resulted in scores greater than or equal to 27.

TABLE 3. Psychosocial Risk and Resiliency Factors Among Trans Men Who Are Gay, Bisexual, or MSM: Ontario, Canada ( $n = 173$ )

	%	95% CI
Sexual satisfaction		
Low	27.5	[14.5, 42.0]
Moderate	33.3	[20.9, 45.6]
High	39.2	[26.1, 54.4]
Sexual body image worries		
Low	42.6	[30.1, 58.2]
Moderate	37.4	[24.7, 49.7]
High	20.0	[10.0, 30.7]
Depressive symptoms		
CES-D < 16	26.1	[15.7, 35.2]
CES-D 16–26	22.2	[12.4, 33.5]
CES-D ≥ 27	51.7	[39.5, 65.9]
Experience of transphobic violence		
None	47.0	[32.3, 61.6]
Verbal harassment or threat	36.1	[24.6, 48.5]
Physical or sexual assault	16.9	[7.3, 28.9]

Note. MSM = men who have sex with men; CI = confidence intervals; CES-D = Center for Epidemiological Studies Depression Scale.

An estimated 16.9% had experienced physical or sexual assault that they attribute to being trans; an additional 36.1% had experienced harassment or threats but not assault.

## DISCUSSION

The diversity of sexual orientation identities and past-year sexual partner genders belie the assumption that trans men transition to be heterosexual men. Even many of those who were currently partnered with a woman did not identify as straight, and there were many who were attracted only to women (sometimes only to cis women) who still identified as queer. Approximately two thirds of trans men were classified as gay, bisexual, or MSM, in that they identified as gay, bisexual, pansexual, two-spirit, or queer and were not exclusively attracted to women; or they had had a cis or trans male sex partner in the past year.

Trans GB-MSM demonstrated a full range of experience with regard to current relationship types, as well as to the number of past-year sexual partners. While not every trans man used

all of his body parts for sexual activity, trans men as a group engaged in all types of activity, including receptive genital sex. Some sexual behaviors involved contact with a partner's "flesh genitals," but others involved prosthetic genitals, toys, or fingers. Even where flesh genitals were involved, condoms or other barriers may have been used. Thus, these sexual behaviors do not correspond directly to HIV-related risk; proportions engaging in high-risk activities were much lower. The primary contributor to HIV risk was unprotected receptive genital sex, an activity some may assume trans men are unlikely to engage in. Most HIV-related sexual high risk related to having cis male partners, as exposure to ejaculate is required to qualify as high risk. For this reason, overall HIV-related sexual risk observed among trans men (Bauer et al., 2012) was entirely born by the GB-MSM subgroup. It is important to note that self-reports of fluid exposure may underestimate actual risk, as activities that involve exposure to pre-ejaculate or to small amounts of ejaculate may not be reported unless inquired about specifically (Hoff et al., 2004).

A fair amount of research exists on trans women who engage in sex work, but participation by trans men is infrequently acknowledged. Proportions of trans men engaging in sex work were similar to trans women within Trans PULSE (Bauer et al., 2012), and trans GB-MSM did not have higher prevalence than trans men overall. However, the extent to which trans men are similar to trans women with regard to the frequency of sex work activities, or to the length of time spent in the trade, is unknown. Trans GB-MSM would likely differ from other trans men with respect to recent sex work involvement, given that involvement with the primarily male sex work clientele would result in classification as MSM.

Results indicate that a high proportion of trans GB-MSM had never been tested for HIV, while 1 in 5 had been tested in the past year. It is unclear how this relates to HIV risk, as some of those who were not tested may have been at low or no risk of HIV. However, it is unlikely that such a high prevalence of never-testing is solely due to an absence of lifetime HIV risk. Given this low uptake of HIV testing, self-reported prevalence

among Ontario trans men must be interpreted cautiously (Bauer et al., 2012). Seroprevalence cannot be estimated for trans men in Ontario, as HIV test site and surveillance data do not capture trans status.

While trans GB-MSM were not notably different from other groups of trans people with regard to sexual satisfaction, a smaller proportion reported zero past-year sex partners, as compared to all trans men (Bauer et al., 2012). The high proportion scored as having low body image worries suggests that many trans GB-MSM are not heavily impacted by trans-specific body image concerns in sexual situations; however, for 1 in 5 these concerns were major. Using the CES-D, the majority of trans GB-MSM scored as depressed. This is consistent with overall findings for trans men in Ontario (Rotondi, Bauer, Scanlon, et al., 2011). However, this scale has not been validated for trans people, and given the extreme stresses trans people can be subject to, we believe that it is unlikely that a score above the cutoff indicates clinical depression. Nonetheless, a large proportion had scores that were well above 16, and this does indicate a high burden of depressive symptoms. That an estimated 16.9% of Ontario's trans GB-MSM have experienced physical or sexual assault that they attribute to being trans, and an additional 36.1% experienced harassment or threats but not assault indicates that trans GB-MSM are subjected to an extremely high level of violence, in addition to other types of violence they may have experienced in their lives. These findings on psychosocial factors were not unique to trans GB-MSM within Trans PULSE. However, there was no indication that trans GB-MSM are in any way protected relative to their trans peers. It is difficult to make comparisons between our results and those from other regions or trans populations due to wide variation in sampling, survey items, and definitions of violence (Stotzer, 2009). For example, the National Transgender Discrimination Study (Grant et al., 2011) asked specifically about experiences of verbal harassment or disrespect in places of public accommodation, which was reported by 62% of trans men. Other quantitative data regarding experiences of trans-related violence among trans GB-MSM or Ontario trans men have not been published to

date. However, trans GB-MSM have described fearing transphobic violence, particularly related to disclosure of trans status in sexual situations (Reisner et al., 2010; Rowiak et al., 2012). Such violence could potentially limit condom efficacy and agency in sexual encounters. Furthermore, experiences of trans-related violence in all areas of life may also contribute to HIV-related sexual risk behavior, as seen among some younger trans women (Nuttbrock et al., 2012).

Previously reported demographic estimates from Trans PULSE are similar to Ontario population estimates, highlighting the strength of our RDS method in reaching a broad sample of trans people across Ontario (Bauer et al., 2012). In comparison to smaller studies that have explicitly recruited sexually active gay, bisexual, or queer-identified trans men in urban centers (Myers et al., 2007; Reisner et al., 2010; Sevelius, 2009), this sample may better reflect the diversity of trans GB-MSM in urban, suburban, and rural areas in Canada's most populous province. It is important to note that while RDS has been demonstrated to produce statistically unbiased estimates (Salganik, 2006), CI are wide. Therefore, point estimates should not be overinterpreted but considered in relation to the range of possible values represented by confidence intervals. Moreover, results are generalizable only to trans people who are at least minimally networked, that is, those who know at least one other trans person.

### ***IMPLICATIONS FOR RESEARCH AND PRACTICE IN SEXUAL HEALTH***

About two thirds of trans men in Ontario, Canada, are GB-MSM and are attracted to or sexually involved with cis or trans men. This indicates that within assessment, counseling, medical, and individual health promotion settings, trans men should not be presumed to be heterosexual. In fact, a more open sexuality may be the norm. Our results show wide diversity among trans GB-MSM with regard to relationship types, sexual activities, psychosocial factors, and HIV-related risk. Thus, no assumptions can safely be made about how an "average" trans GB-MSM may act, what he may do in bed (or not do in bed), or what other psychosocial stressors he may or

may not be facing. Sexual health counseling and history taking should thus account for a full range of possibilities, regardless of prior sexual history or relationship status.

Trans men's sexual health concerns are rarely made visible in gay men's sexual health work, yet trans GB-MSM already exist within gay men's communities, gay bathhouses, and gay men's bedrooms. Sexual health and HIV- and STI-related prevention and testing programs designed for gay and bisexual men need to incorporate trans men's issues and needs and to reflect the potential for gay or queer bodies to be trans bodies. However, given that not all trans GB-MSM will have access to, choose to affiliate with, or get information through existing gay men's communities, it is also important that sexual health information and concerns be explicitly addressed in trans primary care and transition-related care settings. We note that it may not be possible to address these issues well in some assessment settings, particularly where approvals for hormones or surgeries are at stake and where legitimacy of transsexuality has historically been linked with post transition heterosexuality.

Academic knowledge in this area is in its early stages. Additional research is needed to explore how sexuality may vary among trans men with different histories and planned trajectories of medical and social transition. Moreover, relationship structures and characteristics of sexual partners of trans GB-MSM have not been described. Future research could further explore the impact of transphobic violence on sexual risk-taking among trans GB-MSM and sexual health and well-being issues for trans men more broadly, not limited to HIV.

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